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Ph.D. Montana State University, 1992, Aquatic Ecology
M.S. Montana State University, 1988, Fisheries and Wildlife
B.S. Dalian Ocean University, 1982, Aquaculture

Research Interest

Evaluating influences of natural and anthropogenic environmental factors on water quality, physical habitat, and biological communities; modeling relationships among hydrology, thermal, landscape, land-use, physical habitat, and biota; developing multistate and Great Lakes region-wide spatial and data framework, developing tools and conducting aquatic system classification for management practice evaluation and environmental impairment assessment; assessing potential impacts of climate and land-use changes on aquatic ecosystems, and providing science-based management and policy advice to address binational water quality and quantity issues.

Selected Recent Publications

- **Zhao, K., K. Song, Y. Pan, L. Da, L. Wang, Q. Wang.** 2016. Metacommunity Structure of Zooplankton in River Networks: Roles of Environmental and Spatial Factors. *Ecological Indicators* (Accepted).
- **Wang L., D. Infante, C. Riseng, K. Wehrly.** 2016. Advancement of geospatial capability by NRiSD and GLAHF in enhancing aquatic ecosystem research and management. *Geoinformatics & Geostatistics: An Overview* 4 (2):1-5. <http://dx.doi.org/10.4172/2327-4581.1000142>.
- **Forsyth, D.K., C.M. Riseng, K.E. Wehrly, L.A. Mason, J. Gaiot, T. Hollenhorst, C. Johnston, C. Wyrzykowski, G. Annis, C. Castiglione, K. Todd, M. Robertson, D.M. Infante, L. Wang, J. E. McKenna, G. Whelan.** 2016. The Great Lakes Hydrography Dataset: Consistent, Binational Watersheds for the Laurentian Great Lakes Basin. *Journal of American Water Resource Association* DOI: 10.1111/1752-1688.12435.
- **Pan, Y., L. Wang, Y. Cao, W. Pang, Q. Wang, G. Deng.** 2016. Variation of benthic algal assemblages among habitats in subalpine karstic lakes and implications for bioassessment of nature reserves. *Hydrobiologia*. DOI: 10.1007/s10750-016-2775
- **Woznicki, S.A., A.P. Nejadhashemi, Y. Tang, L. Wang.** 2016. Large-scale Climate Change Vulnerability Assessment of Stream Health. *Ecological Indicators* 69:578-594.

- **Cao, Y., B. Wang, J. Zhang, L. Wang, Y. Pan, Q. Wang, D. Jian, G. Deng.** 2016. Spatial variation of lake macroinvertebrate assemblages and relationship with natural environment and tourism stress in Jiuzhaigou National Natural Reserve, China. *Ecological Indicators* 62:182-190.
- **Liu, S., G. Xie, L. Wang, K. Cottenie, D. Liu. B. Wang.** 2016. Different roles of environmental variables and spatial factors in structuring stream benthic diatom and microinvertebrates in Yangtze River Delta, China. *Ecological Indicators* 61:602-611.
- **Cooper, A.R., D.M. Infante^a, K.E. Wehrly, L. Wang, T.O. Brenden.** 2016. Understanding large-scale dam influences on fishes: identifying indicators and quantifying effects. *Ecological Indicators* 61:646-657.
- **Fu, L., Y. Jiang, J. Ding, Q. Liu, Q.Z. Peng, M.Y. Kang, L. Wang.** 2015. Spatial variation of macroinvertebrate community structure and associated environmental conditions in a subtropical river system of Southeastern China. *Knowledge and Management of Aquatic Ecosystems* 416 (17): 1-20.
- **Li, F., Y. Wang, Z. Fan, X. Lv, Y. Hu, L. Wang.** 2015. Characteristics and Spatial Distribution of Macro-invertebrates Assemblages in Qinghe River Drainage, Liaohe River Basin, China. *Fresenius Environmental Bulletin* 24(9):2800-2812.
- **Wang, L., C.M. Riseng, L.A. Mason, E.S. Rutherford, S. Sowa, L. Johnson, J. McKenna, D. Infante, K. Wehrly, C. Castiglione, J. Schaeffer, M. Khoury, M. Roberson, J. Ciborowski, M. Coscarelli.** 2015. A spatial classification and database for management, research, and policy making: the Great Lakes aquatic habitat framework. *Journal of Great Lakes Research* 41:584-596.
- **Woznicki, S.A., A.P. Nejadhashemi, D.M. Ross, Z. Zhang, L. Wang, A. Esfahanian.** 2015. Ecohydrological model parameter selection for stream health evaluation. *Science of the Total Environment* 511:341-353.
- **Chu, L. Y.Z. Yan, W.J. Wang, R. Zhu, Y.Z. Yan, Y.F. Chen, L. Wang.** 2015. Variation in fish assemblages across impoundments of low-head dams in headwater streams of the Qingyi River, China: effects of abiotic factors and native invaders. *Environmental Biology of Fishes* 98:101–112.
- **Daniel, W.M., D.M. Infante, R.M. Hughes, P.C. Esselman, Yin-Phan Tsang, D. Wieferrich, K. Herreman, A.R. Cooper, L. Wang, W.W. Taylor.** 2014. Characterizing coal and mineral mines as a regional source of stress to stream fish assemblages. *Ecological Indicators* 50:50-61.
- **Zhang, Y., J. Zhang, L. Wang, D. Lu, D. Cai, B. Wang.** 2014. Influences of dispersal and local environmental factors on stream macroinvertebrate communities in Qinjiang River, Guangxi, China. *Aquatic Biology* 20:185-194.
- **Esselman, P. C., M. Edgar, J. Breck, L. Hay-Chmielewski, L. Wang.** 2013. Systematic planning of fish conservation focal areas for rivers of Michigan, USA. *Aquatic Conservation: Marine and Freshwater Ecosystems* 23: 7–22.
- **Einheuser, M. D., A. P. Nejadhashemi, L. Wang, S. P. Sowa, S. A. Woznicki.** 2013. Linking biological integrity and watershed models to assess the impacts of historical land use and climate changes on stream health. *Environmental Management* 51:1147–1163.
- **Wang, L., T. Brenden, J. Lyons, D. Infante.** 2013. Predictability of in-stream physical habitat for Michigan and Wisconsin wadeable streams from GIS-derived landscape data. *Riparian Ecology and Conservation* 1:11-24.
- **Esselman, P.C., D.M. Infante, L. Wang, A.R. Cooper, D. Wieferrich, Y. Tsang, D. Thornbrugh, and W.W. Taylor.** 2013. Regional fish community indicators of ecological condition for rivers of the conterminous United States. *Ecological Indicators* 26:163–173.
- **Wehrly, K.E, L. Wang, D. Infante, A. Cooper, C. Geddes, L. Stanfield, E. Rutherford.** 2013. Landscape Change and its Influences on Aquatic Habitat and Fisheries in the Great Lakes Basin. *In: W. Taylor, A. Lynch, and N. Leonard (editors). Great Lakes Fisheries Policy and Management: A Binational Perspective, 2nd Edition.* Michigan State University Press, East Lansing, Michigan.
- **Wang, L., T. Brenden, Y. Cao, P. Seelbach.** 2012. Delineation and validation of river network

- spatial units for water resources and fisheries management. *Environmental Management* 50:875–887.
- **Einheuser, M, P. Nejadhashemi, S. Sowa, L. Wang, Y. Hamaamin.** 2012. Modeling the effects of conservation practices on stream health. *Science of the Total Environment* 436:380-391.
 - **Zhang, Y., B. Wang, M. Han, L. Wang.** 2012. Relationships between the Seasonal Variations of Macroinvertebrates, and Land Uses, for Biomonitoring in the Xitiaoxi River Watershed, China. *International Review of Hydrobiology* 97:184-199.
 - **Wehrly, K. E., J. E. Breck, L. Wang, L. S. Kraft.** 2012. Assessing local and landscape patterns of residential shoreline development in Michigan Lakes. *Lake and Reservoir Management* 28:158–169.
 - **Wehrly, K. E. J. E. Breck, L. Wang, L. Szabo-Kraft.** 2012. Classifying fish assemblages in sampled and unsampled lakes: a multivariate regression tree approach. *Transactions of American Fisheries Society* 141:414–425.
 - **Wang, B., D. Liu, S. Liu, Y. Zhang, L. Wang.** 2012. Impacts of watershed urbanization on stream physical-chemical habitat and macroinvertebrate communities in the tributaries of Qiangtang River, China. *Hydrobiologia* 680:39-51.
 - **Wang, L., D. Infante, P. Esselman, A. Cooper, D. Wu, W. Taylor, D. Beard, G. Whelan, and A. Ostroff.** 2011. A hierarchical spatial framework and database for the national river fish habitat condition assessment. *Fisheries* 36(9): 436-449.
 - **Esselman, P. C., D.M. Infante, L. Wang, D. Wu, A. Cooper, W.W. Taylor.** 2011. An index of cumulative disturbance to river fish habitats of the conterminous united states from landscape anthropogenic activities. *Ecological Restoration* 29:133-151
 - **Wang, L., D. Infante, J. Lyons, J. Stewart, A. Cooper.** 2011. Effects of dams in river networks on fish assemblages in non-impoundment sections of rivers in Michigan and Wisconsin, USA. *River Research and Applications* 27:473–487.
 - **Wang, L., K. Wehrly, J. Breck, L.S. Kraft.** 2010. Landscape based assessment of human disturbance for Michigan lakes. *Environmental Management* 46:471-483.
 - **Lyons, J., T. Zorn, J. Stewart, P. Seelbach, K. Wehrly, L. Wang.** 2009. Defining and characterizing coolwater streams and their fish assemblages in Michigan and Wisconsin, USA. *North American Journal of Fisheries Management* 29:1130–1151.
 - **Wehrly, K.E., T. O. Brenden, L. Wang.** 2009. A comparison of statistical approaches for predicting stream temperatures across heterogeneous landscapes. *Journal of the American Water Resources Association* 45:986-997.
 - **Brenden, T., L. Wang, and Z. Sue.** 2008. Quantitative identification of disturbance thresholds in support of aquatic resource management. *Environmental Management* 42:821-832.
 - **Brenden, T., L. Wang, P.W. Seelbach.** 2008. A river valley segment classification of Michigan streams based on fish and physical attributes. *Transactions of American Fisheries Society* 137:1621-1636.
 - **Stepenuck, K.F., R.L. Crunkilton, M.A. Bozek, L. Wang.** 2008. Comparison of macroinvertebrate-derived water quality metrics between snags and riffles. *Journal of the American Water Resources Association* 44: 670-678.
 - **Wang, L., T. Brenden, P.W. Seelbach, A. Cooper, D. Allan, R. Clark, Jr., and M. Wiley.** 2008. Landscape based identification of human disturbance gradients and references for streams in Michigan. *Environmental Monitoring and Assessment* 141: 1-17.
 - **Wang, L., et al.** 2008. Erratum. Landscape based identification of human disturbance gradients and references for streams in Michigan. *Environmental Monitoring and Assessment* 144: 483-484.
 - **Brenden, T.O., L. Wang, P.W. Seelbach, R.D. Clark, Jr., M.J. Wiley, B.L. Sparks-Jackson.** 2008. A spatially-constrained clustering program for river valley segment delineation from GIS digital river networks. *Environmental Modeling and Software* 23:638-649.
 - **Brenden, T.O., L. Wang, P.W. Seelbach, R.D. Clark, and J. Lyons.** 2007. Comparison between

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- **Wehrly, K., L. Wang, M. Mitro.** 2007. Field-based estimates of thermal tolerance limits for trout: incorporating exposure time and temperature fluctuation. *Transactions of American Fisheries Society* 136: 365-374.
- **Wang, L., D.M. Robertson, P.J. Garrison.** 2007. Linkages between nutrients and assemblages of macroinvertebrates and fish in Wadeable streams: implication to nutrient criteria development. *Environmental Management* 39:194-212.
- **Wang, L., J. Lyons, P. Kanehl.** 2006. Responses of habitat and fish to agricultural best management practices in a warmwater stream. *Journal of the American Water Resources Association* 42: 1047-1062.
- **Wang, L., B. Weigel, P. Kanehl, and K. Lohman.** 2006. Influence of riffle and snag habitat specific sampling on stream macroinvertebrate assemblage measures in bioassessment. *Environmental Monitoring and Assessment* 119:245-273.
- **Wang, L., P.W. Seelbach, R.M. Hughes.** 2006. Introduction to landscape influences on stream habitats and biological assemblages. *American Fisheries Society Symposium* 48:1-23.
- **Hughes, R., L. Wang, P.W. Seelbach, Editors.** 2006. Landscape influences on stream habitats and biological communities. *American Fisheries Society Symposium* 48, Bethesda, Maryland.
- **Wang, L., P.W. Seelbach, J. Lyons.** 2006. Effects of levels of human disturbance on the influence of watershed, riparian, and reach scale factors on fish assemblages. *American Fisheries Society Symposium* 48:199-219.
- **Brenden, T.O., R.D. Clark, A.R. Cooper, P.W. Seelbach, L. Wang, S.S. Aichele, E.G. Bissell, and J.S. Stewart.** 2006. A GIS framework for collecting, managing, and analyzing multi-scale landscape variables across large regions for river conservation and management. *American Fisheries Society Symposium* 48: 49-74.
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- **Baker, E.A., K.E. Wehrly, P.W. Seelbach, L. Wang, M.J. Wiley, and T. Simon.** 2005. Use of explicit statistical modeling to assess ecological stream condition in the Northern Lakes and Forest Ecoregion. *Transactions of American Fisheries Society* 134:697-710.
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- **Wang, L., and P. Kanehl.** 2003. Influences of watershed urbanization and instream habitat on macroinvertebrates in cold-water streams. *Journal of the American Water Resources Association* 39:1181-1196.
- **Weigel, M.B., L. Wang, P.W. Rasmussen, J.T. Butcher, P.M. Stewart, T.P. Simon, and M.J. Wiley.** 2003. Relative influence of variables at multiple spatial scales on stream macroinvertebrates in the Northern Lakes and Forest Ecoregion, USA. *Freshwater Biology* 48:1440-1461.
- **Wang, L., J. Lyons, and P. Kanehl.** 2003. Impacts of urban land cover on trout streams in Wisconsin and Minnesota. *Transactions of the American Fisheries Society* 132:825-839.
- **Wang, L., J. Lyons, P. Seelbach, T. Simon, M. Wiley, E. Baker, S. Niemela, and M. Stewart.** 2003. Influences of landscape- and reach-scale habitat on stream fish communities in the Northern Lakes and Forest ecoregion. *Canadian Journal of Fisheries and Aquatic Science* 60:491-505.